

S W A L L O W.
A NEW
A L M A N A C K

for the Year of our
L O R D G O D
1 6 8 9.

Being the first after Bissextile or Leap-
year, and from the Worlds Creation,
5692.

Calculated properly for the famous
Univerfity and Town of *Cambridge*, where
the North-Pole is elevated 52 deg.
12 min. above the Horizon.

And may serve indifferently for any other
place of this Kingdom.

Omnia falce metit tempus.

C A M B R I D G E,
Printed by *John Hayes*, Printer to
the Univerfity, 1689.

The vulgar Notes and moveable Feasts for this
Year 1689. in both Accounts, viz.

Julian or
English.

Gregoriator
Foreign.

	18	The Golden Number	18	
	18	The Dominical Letter	18	
	18	The Epact	8	
	18	The Cycle of the Sun	18	
Feb.	10	Shrove-sunday	Febr.	20
March	31	Easter-day	April	10
May	9	Ascension-day	May	19
May	19	Whitsunday	May	29
Decemb.	1	Advent-sunday	Novemb.	2

The Anatomy of Mans Body.



♈ Aries Head and Face ♎ Libra Reins and Loyns
 ♉ Taurus Neck & Throat ♏ Scorpio Secret members
 ♊ Gemini Arms and Shoul. ♐ Sagittarius the Thighs
 ♋ Cancer Breast & Stom. ♑ Capricornus the Knees
 ♌ Leo Heart and Back ♒ Aquarius the Legs
 ♍ Virgo Bowels and Belly ♏♏ Pisces the Feet

918

Swallow 1689.

A Table of the Terms with their Returns.

Hilary Term begins Janu- ary 13, and ends February 12, and hath 4 returns, viz.	Octab. Hilary. Jan. 21 Quind. Hilary. Jan. 27 Craft. Purif. Febr. 4 Octab. Purif. Febr. 9
Easter Term begins April 17, ends May 13, and hath 3 returns, viz.	Quind. Pasch. Apr. 15 Tres Pasch. Apr. 22 Mens. Pasch. Apr. 29 Quinq. Pasch. May 6 Craft. Ascen. May 10
Trinity Term begins May 31, and ends June 19, and hath 4 returns, viz.	Craft. Trin. May 27 Octab. Trin. June 3 Quind. Trin. June 10 Tres Trin. June 17
Michaelmas Term begins October 13, ends November 12, and hath 6 returns, viz.	Tres Mich. Octob. 21 Mens. Mich. Octob. 29 Craft. ann. Nov. 4 Craft. Mart. Nov. 12 Octab. Mart. Nov. 18 Quind. Mart. Nov. 25

Note that the Exchequer openeth 8 days before any term begins, except the Term of Trinity, in which it openeth but 4 days before.

Note also that the bright Planet *Venus*; will be our glorious Evening Star from the beginning of the year, the 13 day of *June*; and then making her Conjunction with the Sun, she becomes Oriental, and a glorious Morning Star to the end of the year.

January hath xxxi days.

Last quarter the 3 day, 5 min. past 1 after noon.
 New moon the 11 day, 11 min. past 10 before noon.
 First quarter the 18 day, 27 min. past 8 in the morn.
 Full moon the 25 day, 13 min. past 10 before noon.

1	a	Circumcision	22	9	Virgo	29	Fine mild weather be- gins the Year.
2	b	Octab Steph.	23	10	Libra	11	
3	c	Octab. John.	24	11		23	
4	d	Octab. Innoc.	25	12	Scorp.	5	
5	e	Simon	26	14		17	
6	f	Epiphany	27	15		29	
7	g	Julian	28	16	Sagit.	11	
8	a	Erhardus	29	17		23	
9	b	Sun in Aquar.	0	18	Capr.	6	
10	c	Paul Erem.	1	19		19	Cold and frosky toward the middle of the month with snow.
11	d	Pygmas	2	20	Aquar.	3	
12	e	Satyrus	3	22		17	
13	f	1 aft. Epiph.	4	23	Pisces	0	
14	g	Felix	5	24		14	
15	a	Maurice	6	25		28	
16	b	Maximilian	7	26	Aries	13	
17	c	Anthony	8	27		27	
18	d	Pisces	9	28	Taur.	11	
19	e	Donation	10	29		25	
20	f	2 aft. Epiph.	11	30	Gem.	9	
21	g	Octab. Hilar.	12	31		23	
22	a	Vincent	13	31	Canc.	7	More snow towards the end, but the cold abated.
23	b	Term begins	14	32		20	
24	c	Timothy	15	33	Leo	4	
25	d	Conv. S. Paul	16	34		17	
26	e	Polycarpus	17	35	Virg.	0	
27	f	Septuagesima	18	36		13	
28	g	Quind. Hilar.	19	36		25	
29	a	Carolus	20	37	Libra	7	
30	b	K. Ch. r. Mart.	21	38		19	
31	c	Gregorius	22	39	Scorp.	1	

February hath xxviii days.

Last quarter the 2 day, at 11 before noon.
 New moon the 9 day, 22 min. past 11 at night.
 First quarter the 16 day, 42 min. past 3 afternoon.
 Full moon the 24 day, 13 min. past 2 in the morn.

W.D.	Festival days with terms.	place d. m.	Moons place.	Inclination of the Air.
1	Shrove fast	23 39	Scorp. 13	
2	Purification	24 40	25	
3	Sexagesima	25 40	Sagit. 7	High winds
4	Craft. Purif.	26 41	19	but not very
5	Agatha	27 42	Capr. 1	cold.
6	K. James's day	28 42	14	
7	Zachary	29 42	27	
8	Sun in Pisces	OX 43	Aquar. 21	
9	Octab. Purif.	1 43	25	
10	Shrove-tuad.	2 43	Pisces 9	Very uncer-
11	Euphrosina	3 44	24	tain weather.
12	Term ends	4 44	Aries 8	
13	Ash wednesd.	5 44	23	
14	Valentine	6 45	Taur. 7	
15	Faustine	7 45	22	Cold flabby
16	Juliana	8 45	Gem. 6	weather.
17	Quadragesim.	9 45	19	
18	Concordia	10 46	Canc. 3	
19	Agabine	11 46	17	
20	Ember week	12 46	Leo 10	Frosty
21	Estas	13 46	13	towards the
22	Cathodr. Pet.	14 46	26	end, and
23	Shrove fast	15 46	Virgo 9	some snow.
24	S. Matthias	16 46	21	
25	Micah	17 46	Libr. 3	
26	Isidor	18 46	15	
27	Fortuna	19 46	27	
28	Quar.	20 45	Scorp. 19	

March hath xxxi days.

Last quarter the 4 day, 9 min. past in the morn.
 New moon the 11 day, 58 min. past 9 before noon.
 First quarter the 18 day, 18 min. past 12 in the morn.
 Full moon the 25 day, 15 min. past 6 at night.

1	D	David Bish.	1	45	Scorp.	21	
2	E	David Bish.	2	45	Sagit.	3	Windy with
3	F	3 Sun. in Lent	3	45		15	cold rain of
4	G	Julian	4	44		27	snov.
5	A	Enochian	5	44	Capr.	9	
6	B	Frederick	6	43		22	
7	C	Sebastian	7	42	Aquar.	5	
8	D	Cyprian	8	42		19	
9	E	Prudent	9	42	Pisc.	3	
10	F	4 Sun. in Lent	10	41		18	Tempestuous
11	G	Eunibert	11	41	Aries	3	but very
12	A	Eligius	12	41		19	seasonable
13	B	Erasmus	13	40	Taur.	2	weather
14	C	Entychus	14	40		17	
15	D	Longinus	15	39	Gem.	1	
16	E	Boniface	16	38		16	
17	F	Abbas in Lent	17	37	Canc.	0	
18	G	Gabriel	18	36		14	Cold and
19	A	Joseph	19	35		27	cloudy.
20	B	Rupert	20	34	Leo	1	
21	C	Benedict	21	33		23	cloudy
22	D	Paulinus	22	32	Virgo	3	
23	E	Anthony fast	23	31		18	
24	F	Paul Sunday	24	30	Libra	15	
25	G	John day	25	29		2	Very boiste-
26	A	Callistus	26	28		24	rous toward
27	B	Archibald	27	26	Scorp.	6	the end, but
28	C	Adrian	28	25		18	not very cold.
29	D	Good Friday	29	24		29	
30	E	Quintus & fast	30	23	Sagit.	11	
31	F	John day	31	21		23	

April hath xxx days.

Last quarter the 2 day, 32 min. past 9 at night.
 New moon the 9 day, 33 min. past 6 at night.
 First quarter the 16 day, 43 min. past 10 before noon.
 Full moon the 24 day. 1 min. past 11 before noon.

1	g	Conv. 20. 20.	22	20	Capr.	6	
2	a	Mary Egypt	23	18		18	Very good
3	b	Christian.	24	17	Aquar.	1	weather at
4	c	Ambrose	25	15		14	the begin-
5	d	Vincent	26	14		28	ning of the
6	e	Quintus	27	12	Pisces	11	month and
7	f	Low Sunday	28	11		26	indifferently
8	g	Dionysius	29	9	Aries	11	Warm.
9	a	Sun in Taurus	08	8		26	
10	b	Ezechiel	1	6	Taur.	11	
11	c	Leo Pap.	2	4		26	
12	d	Justin	3	3	Gem.	11	About this
13	e	Justinus	4	1		26	time cold and
14	f	2 after Easter	4	59	Canc.	10	cloudy.
15	g	Quind. Pasch.	5	57		24	
16	a	Adoze	6	55	Leo	7	
17	b	Term begins	7	54		20	
18	c	Spollin.	8	52	Virgo	2	
19	d	Timothy	9	50		15	Much rain
20	e	Sulpitius	10	48		27	now.
21	f	3 after Easter	11	46	Libr.	9	
22	g	Tres Pasch.	12	44		21	
23	a	S. George	13	42	Scorp.	3	
24	b	Alibertus	14	40		14	Windy and
25	c	S. Mark Evan.	15	37		26	turbulent
26	d	Cletus	16	35	Sagit.	8	toward the
27	e	Anastas	17	33		20	end.
28	f	4 after Easter	18	31	Capr.	2	
29	g	Menf. Pasch.	19	29		15	
30	a	Iosua	20	26		27	

May hath xxxi days.

Last quarter the 2 day, 27 min. past 10 before noon.
 New moon the 9 day, 35 min. past 1 in the morning.
 First quarter the 15 day, 12 min. past 11 at night.
 Full moon the 24 day, 20 min. past 2 in the morning.
 Last quarter the 31 day, 41 min. past 7 at night.

1	b	Phil. & James	21	24	Aquar.	10	
2	c	Athenasius	22	21		23	Moist weather
3	d	Innoc. Cruch	23	19	Pisces	6	at the begin-
4	e	Florent	24	17		20	ning and
5	f	Rogation Sun.	25	15	Aries	4	cold.
6	g	Joh. port. L.	26	12		19	
7	a	Joh. of Bev.	27	10	Taur.	4	
8	b	Stanislaus	28	7		19	
9	c	Alcen. Dom.	29	5	Gem.	5	
10	d	Sun in Gem.	0	II 9		20	High winds
11	e	Christian	0	57	Canc.	5	and dry.
12	f	6 after Easter	1	5		19	
13	g	Term ends	2	55	Leo	3	
14	a	Fortuna	3	52		16	
15	b	Sophia	4	50		29	
16	c	Perceus	5	47	Virgo	11	
17	d	Jobocus	6	44		24	Very good
18	e	Clement. fast	7	42	Libra	6	seasonable
19	f	Whit-sunday	8	39		18	weather
20	g	Frank. Ber.	9	36		29	now.
21	a	Julian Virg.	10	33	Scorp.	11	
22	b	Ember week	11	30		23	
23	c	Desider.	12	28	Sagit.	5	
24	d	Elther	13	25		17	
25	e	Urbanus	14	22		29	High winds
26	f	Trinity Sund.	15	20	Capr.	12	toward the
27	g	Craze. Tris.	16	17		24	end, and cold
28	a	Monica	17	14	Aquar.	7	for the season
29	b	K. Ch. 2. Ret.	18	11		20	with rain.
30	c	Corpus Christi	19	8	Pisces	3	
31	d	Term begins	20	6		16	

June hath xxx days.

New moon the 7 day, 9 min. past 10 before noon.

First quarter the 14 day, 52 min. past 1 after noon.

Full moon the 22 day, 19 min. past 4 after noon.

Last quarter the 30 day, 57 min. past 1 in the morn.

1	c	Sticomedes	21	3	Aries	0	
2	f	1 after Trin.	22	0		14	
3	b	Othab. Trin.	22	57		28	Good mode-
4	a	Petrocius	23	54	Taur.	13	rate weather
5	b	Boniface	24	51		28	begins the
6	c	Artemid.	25	48	Gem.	19	month.
7	d	Paul Ep.	26	45		28	
8	c	Spedardus	27	43	Canc.	13	
9	f	2 after Trin.	28	40		27	
10	b	Quind. Trin.	29	37	Leo	11	
11	a	S. Barnabas	30	34		25	Very hot
12	b	Blasius	1	31	Virg.	8	about this
13	c	Cyprian	2	28		20	time with
14	d	Valerius	3	25	Libra	2	thunder.
15	c	Vitus	4	22		14	
16	f	3 after Trin.	5	19		26	
17	b	Tres Trin.	6	16	Scorp.	8	
18	a	Gerbasius	7	13		20	
19	b	Term ends	8	10	Sagit.	2	High winds
20	c	Regina	9	7		14	with frequent
21	d	Alban.	10	4		26	showers.
22	c	Lehat. fast	11	1	Capr.	8	
23	f	4 after Trin.	11	58		21	
24	b	S. John Bapt.	12	56	Aquar.	4	
25	a	Elogius	13	53		16	
26	b	Acemias	14	50	Pisces	0	Hot weather
27	c	7 Sleepers	15	47		13	must now be
28	d	Leo P. fast	16	44		26	expected.
29	c	S. Peter Apo	17	41	Aries	10	
30	f	5 after Trin.	18	38		24	

July hath xxxi days.

New moon the 6 day, 29 min. past 5 after noon.
 First quarter the 14 day, 55 min. past 1 in the morn.
 Full moon the 22 day, 59 min. past 4 in the morn.
 Last quarter the 29 day, 8 min. past 6 in the morn.

1	B	Theobald	19	35	Taur.	38	
2	a	Visit. Mary	20	32		22	Hot weather
3	a	Cornelius	21	29	Gem.	7	with rain.
4	a	Nicolas	22	27		22	
5	a	Anselm	23	24	Canc.	7	
6	a	Old. Petr.	24	21		21	
7	a	6 after Trin.	25	18	Leo	5	
8	a	Demetrius	26	15		19	
9	a	Cyrillus	27	12	Virg.	3	Tempestuous
10	a	7 Barthol.	28	10		16	with thun-
11	a	John	29	7		28	der.
12	a	John in Leo	30	4	Libra	13	
13	a	Margaret	1	1		22	
14	a	7 after Trin.	2	58	Scorp.	4	
15	a	Swithun	3	56		16	
16	a	Julian	4	53		28	High winds
17	a	Alexius	5	50	Sagit.	10	and showery
18	a	Matthias	6	47		23	with storms
19	a	Dox days be	7	45	Capr.	4	of hail.
20	a	Elias	8	42		17	
21	a	8 after Trin.	9	40	Aquar.	0	
22	a	Mary Magd.	10	37		23	
23	a	Apollonius B.	11	34		26	
24	a	Christin. f. ap.	12	32	Pisces	9	Very good
25	a	James Ap.	13	29		23	weather
26	a	John	14	27	Aries	7	toward the
27	a	Martha	15	24		21	end.
28	a	9 after Trin.	16	21	Taur.	5	
29	a	Beatrice	17	19		19	
30	a	Abdon	18	17	Gem.	3	
31	a	German	19	14		17	

August hath xxxi days.

New moon the 1 day, 22 min. past 12 in the morn.
First quarter the 12 day, 12 min. past 11 at night.
Full moon the 20 day, 18 min. past 11 after noon.
Last quarter the 27 day, 30 min. past 10 before noon.

1	C	Lammas day	19	12	Canc.	1	
2	D	Stephanus	20	9	02	26	
3	E	Augustus	21	7	Leo	0	
4	F	10 after Trin.	22	5	02	14	Stormy with
5	G	Fest. Pius	23	2	02	27	thunder and
6	A	Transl. Christi	23	59	Virgo	10	generally a
7	B	Donatus	24	57	02	23	tempestuous
8	C	Augustus	25	55	Libra	06	season, but
9	D	Augustus	26	58	02	18	not very hot.
10	E	Laurence	27	51	Scorp.	0	
11	F	11 after Trin.	28	49	02	12	
12	G	Clare Virg	29	47	02	24	
13	A	Sun in Virgo	01	45	Sagit.	6	
14	B	Bartholom.	01	43	02	18	Cloudy weather
15	C	Assumpt. Mary	2	41	Capr.	0	clear but some
16	D	Rochus	3	39	02	12	part as to
17	E	Hammer	4	37	02	25	heat
18	F	12 after Trin.	5	35	Aquar.	8	
19	G	Medardus	6	33	02	21	
20	A	Bartholom.	7	31	Pisces	27	
21	B	Praxiphanes	8	29	02	19	
22	C	Symphon	9	27	Aries	03	
23	D	S. Bartholom.	10	26	02	17	Windy and
24	E	S. Bartholom.	11	24	Taur.	1	unpleasant
25	F	13 after Trin.	12	22	02	14	unpleasant
26	G	Agnes	13	20	Gem.	0	cloudy
27	A	Dog days end	14	19	02	14	cloudy
28	B	Augustine	15	17	02	28	cloudy
29	C	Decol. Bapt.	16	15	Canc.	12	cloudy
30	D	Felix	17	14	02	26	cloudy
31	E	Anthurge	18	12	Leo	9	

September hath xxx days.

New moon the 3 day, 40 min. past 3 after noon.
 First quarter the 11 day, 18 min. past 5 after noon.
 Full moon the 19 day, 47 min. past 8 in the morn.
 Last quarter the 25 day, 14 min. past 7 at night.

1	14 after Trin.	19	11	Leo	13	
2	Scraphia	20	9	Virgo	6	Wet and cold
3	Euphem.	21	8		19	for the season
4	Theobaldus	22	6	Libra	2	
5	Jachary	23	5		14	
6	Agabus	24	4		26	More rain
7	Regina	25	2	Scorp.	8	may yet be
8	15 after Trin.	26	1		25	expected.
9	Seizon	27	0	Sagit.	2	
10	Bedechus	27	59		14	
11	Theobald	28	58		26	
12	Cobian	29	57	Capr.	18	
13	Sun in Libra	30	56		20	High winds
14	Exalt. Crucis	1	54	Aquar.	3	and dry now.
15	16 after Trin.	2	53		16	
16	Euphemus	3	52		29	
17	Lambert	4	52	Pisces	12	
18	Ember week	5	51		27	Fine mild
19	Joanninus	6	50	Aries	12	weather now
20	Paulus Fast	7	49		27	with a clear
21	S. Matthew	8	48	Taur.	11	air, and frosty
22	17 after Trin.	9	47		26	soon after.
23	Elstus	10	47	Gem.	10	
24	Euphem	11	46		25	
25	Elephas	12	45	Ginc.	9	
26	Cyprian	13	45		22	
27	Quintus	14	44	Leo	16	More oblique
28	Joannellus	15	43		19	foss with
29	S. Michael	16	43	Virgo	2	rain.
30	Jerome	17	43		15	

October hath xxxi days.

New moon the 3 day, 56 min. past 6 in the morn.

First quarter the 11 day, at 11 before noon.

Full moon the 18 day, 40 min. after noon.

Last quarter the 25 day, 22 min. past 2 in the morn.

1	a	Remigius	18	42	Virgo	28	
2	b	Leodegar	19	42	Libra	10	
3	c	Stimplicius	20	42		22	Cloudy
4	d	Franciscus	21	41	Scorp.	5	Weather and
5	e	Ides	22	42		17	windy.
6	f	19 after Trin.	23	41		28	
7	g	Ides	24	40	Sagit.	10	
8	a	Helagia	25	40		22	
9	b	Dionysius	26	40	Capr.	4	
10	c	Gideon	27	40		16	Fine weather
11	d	Barchard	28	40		28	now.
12	e	Willibrod.	29	40	Aquar.	11	
13	f	Sun in Scorpio	0	40		24	
14	g	K. Jam. 2 born	1	40	Pisces	7	
15	a	Weswig.	2	40		21	
16	b	Callus	3	40	Aries	4	
17	c	Florent.	4	40		20	Windy and
18	d	S. Luke Evan.	5	40	Taur.	5	dry.
19	e	Stolomey	6	41		20	
20	f	21 after Trin.	7	41	Gem.	5	
21	g	Tres Mich.	8	41		20	
22	a	Cordula	9	42	Canc.	5	
23	b	Term begins	10	42		19	
24	c	Salome	11	42	Leo	3	Tempestuous
25	d	Crispine	12	43		16	and cold rains
26	e	Amandus f.	13	43		29	about the end
27	f	22 after Trin.	14	43	Virgo	12	of the month.
28	g	S. Sim. & Jude	15	44		25	
29	a	Mens. Mich.	16	44	Libra	7	
30	b	Abolon	17	45		19	
31	c	Wolfgang fa.	18	45	Scorp.	1	

929 November hath xxx days:

New moon the 1 day, 36 min. past 12 in the morn.

First quarter the 10 day, 36 min past 3 in the morn.

Full moon the 16 day, 40 min. past 10 at night.

Last quarter the 23 day, 25 min. past 5 at night.

1	D	All Saints	19	46	Scorp.	13	
2	E	All Souls	20	47		24	High winds
3	F	23 after Trin.	21	47	Sagit.	27	But serenity
4	G	Craft Anim.	22	48		19	of Air
5	A	Powder plot	23	49	Capr.	1	
6	B	Leonard	24	50		13	
7	C	Willibald	25	50		25	
8	D	Claudio	26	51	Aquar.	7	
9	E	Theodore	27	52		20	Much rain
10	F	24 after Trin.	28	53	Pisces	2	may now be
11	G	Martine Ep.	29	54		16	expected.
12	A	Sun in Sagit.	01	54		29	
13	B	Eugenia	1	55	Aries	13	
14	C	Frederic	2	56		28	
15	D	Leopold	3	57	Taur.	13	
16	E	Edmund	4	58		28	Cold weather
17	F	25 after Trin.	5	59	Gem.	13	now with
18	G	Octab. Mart.	7	0		29	rain or snow.
19	A	Elizabeth	8	1	Canc.	14	
20	B	Amos	9	2		28	
21	C	Oblat. Mary	10	3	Leo	12	
22	D	Cecilia	11	4		25	
23	E	Clemens	12	5	Vi go	9	Windy and
24	F	26 after Trin.	13	6		22	boisterous
25	G	Quind. Mart.	14	7	Libra	4	weather,
26	A	Conradus	15	9		16	and about
27	B	Agricola	16	10		28	the end ex-
28	C	Term ends	17	11	Scorp.	10	pect frost.
29	D	Saturnine f.	18	12		22	
30	E	S. Andrew	19	13	Sagit.	4	

December hath xxxi. days.

New moon the 1 day, at 8 at night.
 First quarter the 9 day, 1 min. past 6 at night.
 Full moon the 16 day, 3 min. past 10 before noon.
 Last quarter the 23 day, 43 min. past 10 before noon.
 New moon the 31 day, 3 min. past 3 after noon.

1	A	Advent Sund.	20	14	Sagit.	16	
2	B	Candidus	21	16		23	
3	a	Cassianus	22	17	Capr.	10	Cold with
4	b	Barbara	23	18		22	snow.
5	c	Sabine	24	19	Aquar.	4	
6	d	Nicholas	25	21		17	
7	e	Agathon	26	22		29	Cloudy dark
8	f	2 sun. in Adv	27	23	Pisces	12	weather and
9	g	Josephim	28	24		25	indifferent
10	a	Miltiades	29	26	Aries	9	cold.
11	b	Sun in Capr.	27	27		22	
12	c	Valerius	1	28	Taur.	7	
13	d	Rutha Virg.	2	30		21	
14	e	Oth'le	3	31	Gem.	6	High winds
15	f	3 sun. in Adv	4	32		22	and cold.
16	g	O Sapientia	5	34	Canc.	7	
17	a	Gratian	6	35		22	
18	b	Amber week	7	36	Leo	7	Cold weather
19	c	Loth.	8	37		21	with frost and
20	d	Amon fast	9	39	Virgo	5	snow.
21	e	S. Thomas	10	40		18	
22	f	4 sun. in Adv.	11	41	Libra	0	
23	g	Victor	12	44		13	
24	a	3d. & 4th. fast	13	45		25	The year
25	b	Christmas day	4	46	Scorp.	7	ends with
26	c	S. Stephen	15	47		19	good seaso-
27	d	S. John Evan.	16	48	Sagit.	1	nable wea-
28	e	H. Innocents	17	50		13	ther.
29	f	1 after Christ.	18	51		24	
30	g	David	19	52	Capr.	7	
31	a	Elphinst	20	54		19	

Swallow 1689.

A Regal Table in a more exact manner.

The Year, Month and Day, (accounting the Year to be- gin Jan. 1. & whereon every K. and Q. of Eng. since the Conq. began their reign.			The number of Years, Months, & Days, that Every K. and Q. reigned 38 da. to a mon.			The num. of expired in this since they began to reign: as also since they ended.		
K. W. Conq.	1066	Octob. 14	10	y	11	m	12	d 633
W. Rufus	1087	Sept. 9	12	y	11	m	18	d 603
Henry	1100	August 1	35	y	4	m	11	d 529
Stephen	1135	Decem. 2	18	y	11	m	18	d 554
Henry	1154	Octob. 25	34	y	9	m	2	d 535
Richard	1189	July 6	9	y	9	m	0	d 500
John	1199	April 6	17	y	7	m	0	d 490
Henry	1216	Octob. 19	56	y	1	m	0	d 473
Edward	1272	Nov. 16	34	y	8	m	6	d 47
Edward	1307	July 7	19	y	7	m	5	d 382
Edward	1327	Jan. 25	50	y	5	m	7	d 362
Richard	1377	June 21	22	y	3	m	14	d 312
Henry	1399	Sept. 29	13	y	6	m	3	d 250
Henry	1413	March 20	9	y	5	m	24	d 276
Henry	1422	Aug. 31	38	y	6	m	16	d 267
Edward	1461	March 4	22	y	1	m	8	d 228
Edward	1483	April 9	0	y	2	m	18	d 206
Richard	1483	June 22	2	y	2	m	5	d 206
Henry	1485	Aug. 23	23	y	10	m	24	d 204
Henry	1509	April 23	37	y	10	m	2	d 180
Edward	1547	Jan. 28	6	y	5	m	19	d 143
Q. Mary	1553	July 6	5	y	4	m	22	d 136
Q. Elizab.	1558	Nov. 17	44	y	4	m	15	d 131
James	1603	March 24	22	y	0	m	3	d 86
Charles	1625	March 29	22	y	10	m	3	d 64
Charles	1649	Jan. 30	36	y	0	m	7	d 40
James	1685	Febr. 6	Long live the King.			4	Charles	

The use of the Table in Example.

King Henry 8 began his Reign in the year of Christ 1509, April 23. He Reigned 37 years, 10 months, and 2 days. It is since he began his Reign 180 years compleat the 23 of April this year 1689. Now to know the time since the end of his Reign, before his name standing on the right hand, you shall there find 142 years since he died, Jan. 28. And so of the rest.

SWALL

SWALLOW.

The latter part of this

ALMANACK

for the Year of our

LORD GOD

1689.

Being the first after Bissextile or Leap-year, and from the Conquest of England by William Duke of Normandy 623 years.

Wherein is contained an account of the Eclipses, the time of the Sun's entrance into the four Cardinal Signs, An account of the order of the Spheres, &c. Likewise Tables of Weights and Measures, A Table of Timber measure, with Rules for measuring Boards and Timber, and Tables for Purchasing explained, with other profitable and delightfull things.

*Poma das Antumnas: formosa est messibus Aestas:
Ver praebet flores: Igne leuatur Hyems,*

CAMBRIDGE,

Printed by John Hayes, Printer to the
University, 1689.

Of the Eclipses this Year.

THIS Year there will happen two Eclipses, and both of the Moon; they will be both visible, total, and central.

The first of them happens on the 25 day of *March*, about 7 of the Clock at night, it is celebrated in the degree of *Libra*, and will be above 21 digits Eclipsed, it begins in the 12 Angle, being the Angle of sorrow, labour and imprisonment, and ends in the 10 Angle. *Saturn* at the beginning thereof is in the Horescope in Quadrate of *Mars*; and *Mercury* is in opposition of the Moon.

The second happens the 19 day of *September*, toward 3 of the Clock in the morning; it is celebrated in 7 degrees of *Aries*, and will be above 20 digits Eclipsed; it happens in the House of death, and endeth in the Angle of quarrels, strifes and Contentions. *Mercury* opposes the Moon, and the 2 infortunes are in Opposition.

The Suns entrance into the four Cardinal Signs
this Year.

He enters γ , *March* the 9th day, 19 minutes past 11 at night, and then begins our Spring Quarter.

He enters σ , *June* the 10th day, 41 minutes past 1 at night, and then begins our Summer Quarter.

He enters π , *September* the 12th day, 13 minutes past 1 afternoon, and then begins our Autumn.

He enters μ , *December* the 11th day, 4 minutes past 1 in the morning, and then begins our Winter Quarter.

Shallom, 1682.

Of the true delineation of the Heavens.

THE motion of the Heavens, and of the Co-
 celestial bodies are solved in two manner of waies,
 that is either by the Earth's standing still, and the
 motions of the Sun, or by the Sun's standing still,
 and the motion of the Earth. *Ptolemy*, and *Tycho*
Brahe imbrace the first way, as doo many others
 with. But *Copernicus* being induced thereto by ma-
 ny observations, held the latter, and that the Sun
 is in the Center of the Universe, and there rests;
 moving only about his own Aids, which opinion
 will appear to be most consentaneous to reason,
 when we have considered the posture of the Spheres,
 and their several Phenomena. *gunes* 10 51022 311
 For the setting forth of which I think it most
 convenient to begin with the order of the several
 spheres, and to shew their dimensions and how they
 compass one another. *gunes* 10 51022 311
 First we will begin with the description of the
 first Heaven, which is all that space in which all
 the Planets perform their motions, The Orbits
 of *Saturn* being the highest of them, and
 therefore the remotest boundary of the first Heaven,
 this Sphere comprehending all the rest: And all the
 space comprehended betwixt this Orbit, and the
 center of the fixed Stars is called the second Hea-
 ven, the greatness of which shall be shewed, when
 we come to treat of the third Heaven, which
 is the Stars, in the Blessed is beyond the bounds

Section 1689.

of the second Heaven, and is invisible, the other two are visible, being within ken of our mortal eyes.

In the Center of the first Heaven, and so consequently in the Center of the Universe, is placed the great Luminary the Sun, sending forth his rays as far as the utmost bounds of the first Heaven, and so enlightning the whole Planetary System.

The first above the Sun is the Sphere of Mercury, whose Semidiameter is 1573 of such parts of which the Semidiameter of the Sphere of the Earth is 10000, his least excentricity is 948 of such parts.

The second Sphere which is next above this, is the Sphere of Venus, whose Semidiameter is 7109 of the same parts, her least excentricity is 145 such parts.

The third Sphere which doth next encompass the former, is the Sphere of the Earth, whose Semidiameter is 10000 parts, it's excentricity is 350 of those parts, and it's Aphelion is now in about 3 degrees of Cancer.

Next above the Sphere of the Earth, is the Sphere of Mars, whose Semidiameter is 19183 such parts as before, his least excentricity is 1472 of those parts, and his Aphelion, that is his greatest distance from the Sun is now in about 28 degrees of Aries.

The fifth Sphere, being the Sphere of Jupiter, is next above the former, it's Semidiameter is 91995

of such parts as the former were of; and it's least
eccentricity is 2472 of those parts.

The next and highest is the Sphere of *Saturn*
whose Semidiameter is 99304 of the same parts;
and it's eccentricity 5660 of those parts.

The Sphere or Globe of the Moon is appen-
dant to the Earth, always respecting that for it's
Center; it's Semidiameter is 400 of such parts as
before were mentioned, it's greatest eccentricity
in the *Syzysie* is 34 of those parts.

Lastly, the Sphere of the Fixed Stars is at least
8854937 that is almost seventy Millions of the
same parts, which is the farthest limits or bounds of
the second Heaven, the vastness of which shall be
declared in it's proper place.

The next thing to be considered, or rather ad-
mired is the Symmetry, and apt connexion of the
Spheres amongst themselves: For altho' they have
several Centers, yet they seem as if they had all
one Center, because their eccentricities bearing
a small proportion to the magnitude of their
Spheres, seem nothing; from which it is manifest
that the Great and Omnipotent Architect, who
not only insinuate into the minds of Men an im-
age of his Eternal wisdom in making this globe
a frame; but also his infinite power, considering
the vastness thereof.

Another thing to be admitt'd is the ordinate dis-
position of the Spheres: For besides that every
Sphere doth encompass the Sun, respecting that for
their

The next thing to be considered is the Spheres and bodies of *Mercury* and *Venus*; which our great Omnipotent Master-Builder hath placed next the Sun, and that both for the glorious Sun's sake, and the Earth's sake; for if we respect the motions of these two Planets, we shall find them alwaies near the Sun, and tending upon him like Guards to a King, sometimes going before him, and sometimes following him; but what their office is we shall now declare.

It is certain that the Sun is the hottest of all the bodies of the first Heaven, and that as the Moon is the Government of the Waters, so hath the Sun the Fire; for his body is nothing else but Fire, as certain *Philosophers* termed it a glowing Mass.

Now the Sun being of so vast a magnitude, and so hot, would certainly burn the Earth, unless his immoderate heat was by some means allayed; and therefore there is nothing in the way to stay this great heat but the Air and the Water. It hath pleased God of his infinite wisdom, to place these two Planets, so near this Globe of Fire; the one of which is of an Airy nature, the other partakes both of Cold and Moisture, that so his intense heat may be moderated and rendered wholesome to our Earthy Globe, and to us Mortals that dwell there; as in the little world, the body of Man, unless the Heart which represents the Sun were sometimes refreshed by the Pericardium and refocillation of the Lungs which are next to it, the whole body would, as it

were, wither and languish away by the excessive heat of the Heart.

The next is the Sphere of the Earth, which possesseth the middle place between the inferior and superior Planets, which is indeed the fittest place for our Earthy Globe to receive their influences, for if it had been set in the Center of the Spheres, it would have been the lowest of all the Planets, and so would have been too far from the third Heaven, which is the Throne of the Divine Majesty; and if the Sphere of *Saturn* had been it's Orbite, then it would have been too far removed from the Sun, and the neighbouring Planets; but the Divine Wisdome who created the Earth chiefly for Man, and gave it him for his habitation, had respect unto him in placing it in so convenient a place, for the reception of the benefits of the Celestial bodies.

The motion of the Earth is two fold, Diurnal about it's own Axis, and Annual in the Ecliptic, by it's Diurnal motion, God doth cause Man to be partaker, not only of the light and heat of the Sun, but also of his enlivening virtue, from whence we may see how the Almighty doth as it were carry this Earthy Ball in his Arms, turning it to the Sun as to a warm Fire, that we his Creatures may enjoy it's Light and Heat, and other Commodities: And as it moves through the Ecliptic in a Year, we are carried as if we were in a Triumphal Chariot, that so in the same space of time we may

view with pleasure, his wonderfull works, and celebrate his praise.

The next to be spoken of is the Sphere of the Moon, which is as it were an Epicycle about the body of the Earth, respecting that alwaies for it's Center; and as *Mercury* and *Venus* do alwaies accompany the Sun, so doth the Moon alwaies accompany the Earth; her greatest distance from it is something above 64 Semidiameters of the Earth, and it is above 45 times less than it; and the Moon being thus joyned as it were to the Earth, becomes another Sun to it, for the Moon doth that to the Earth in the night, which the Sun doth by day, but in a much more imperfect manner. And as the Moon is, as it were another Sun to the Earth, so it is to the Sun, as it were another Earth, for the half and, and something more of both their bodies is alwaies enlightened by the Sun, the remaining parts at the same time being in darkness, only there is this difference between them, *viz.* The Earth because of its motion about its Axis, is every day enlightened wholly by the Sun (at least in those Regions which enjoy the Diurnal light thereof) but the Moon only in the space of 29 days and an half, because all her surface is not turned to the Sun, in a less time.

Next follow the Spheres of *Mars*, *Jupiter*, and *Saturn*, which Planets are placed as it were in *Aequilibrio* to the three inferiours, *Sol*, *Mercury*, and *Venus*, for *Saturn* in the highest Sphere being
very

very cold, is opposed to the Sun, for the moderating of that great heat which nature hath indued him with; next is *Jupiter*, by nature temperate, which is to moderate the great intemperateness of *Mercury*; then follows *Mars*, who is next the Earth, and by nature hot and dry, which is moderated by *Venus*, who is cold and moist: From whence it follows, that the first Heaven is made not only in number and measure, but also in weight.

And it is to be noted that all the Planets do spend their force upon the Earth, which is only subject to their effects, and this for the sake of Man its inhabitant: for we find no alteration among the Planets themselves, but whatsoever they effect by their mutual Aspects, falls upon the Earth, for when the Superiors behold the Inferiours, or on the contrary, as *Saturn* the Sun, or the Sun *Saturn*; *Jupiter*, *Mercury* &c. because their natures are so contrary, therefore do they so forceably work upon the Earth, and move the Air, so as if the Gates of Heaven were open to the producing of Wind, Hail, Snow, &c. from whence these vicissitudes are called *Apertio Portarum*, aut *Vibrationes magnarum Valvarum*.

Next we shall ascend to the second Heaven, which is bounded by the Sphere of *Saturn*, and the Sphere of the Fixed Stars, but to the Sphere of the Fixed Stars from the Center of the Universe is 68754937 such parts of which the Semidiameter of the Sphere

of

The Earth is 10000, and the distance of the
 Sphere of *Saturn* from the same Center, and of
 the same parts is 99,04, the difference of which
 is 88,36, which is the distance between the
 Sphere of *Saturn*, and the Fixed Stars, the immen-
 sity of which is so great, that the Semidiameter
 of the first Heaven, which is the distance of the
 Sphere of *Saturn* from the Center of the Universe,
 being the place of the Sun, is not above the 1st
 part of one degree of the greatest Circle of the
 first Heaven, a degree therefore being divided
 into 60 parts, and a Circle described at the distance
 of one of them, you will have the Circumference of
 the first Heaven in a due proportion to the second:
 If the Semidiameter of the second be taken to
 be of our common feet, the Circumference of
 the first Heaven would not be much greater then
 10,00, and proportionably less or greater ac-
 cording as the Semidiameter of the second Heaven
 be taken less or greater; from whence we may see
 and admire the Vastness of the second Heaven,
 for as the Sphere of *Saturn*, which includeth the
 first Heaven, is such, that the Earth being com-
 pared to it, is scarce a point; so the Sphere of the
 Fixed Stars, which doth encompass the second
 Heaven is of such a vast magnitude, that in com-
 parison thereof the whole Sphere of the Earth is
 but a point, and the space between the Sphere of
Saturn, and that of the Fixed Stars is above six
 hundred times greater then the Semidiameter of the

the first Heaven, that is the distance of the Sphere of Saturn from the Center of the world, so vast is the extension of the second Heaven, and altho the greatness thereof cannot but be much admired, yet it is not greater then reason and proportion requires, which will appear if we consider that it is made proportional to the Luminaries which are placed in the highest place of the Firmament, and this not without great benefit to both the visible Heavens; for the second Heaven being contracted or made less, the light thereof, would spoyl the light of the first, or being too far extended, the light would not be sufficient to illuminate the extreme parts thereof, seeing the lights of the second Heaven are the Fixed Stars, whose illumination doth terminate at the Sphere of Saturn, but the light of the first Heaven is the Sun, whose light illuminating all the Planets, terminates there also: Nothing now remains but that we should for ever praise and admire our infinitely wise Creator, who in such absolute perfection hath made the goodly frame of this visible World.

Swallow 1689.

A plain and easie Table shewing the true Interest due upon any Sum of Money from five Shillings to an Hundred Pounds, for a Year or under, after the rate of Six Pounds in the Hundred.

		1 month.			3 months.			6 months.			9 months.			A Year.		
		lb.	s.	d.	lb.	s.	d.	lb.	s.	d.	lb.	s.	d.	lb.	s.	d.
Shillings.	5	0	0	10	0	3	0	1	3	0	1	2	0	3	1	
	10	0	0	20	1	3	0	3	2	0	5	0	0	7	0	
	15	0	0	30	2	2	0	5	1	0	8	2	0	10	2	
Pounds.	1	0	1	00	3	2	0	7	0	0	10	2	1	2	1	
	2	0	2	10	7	0	1	2	1	1	9	1	2	4	2	
	3	0	3	20	10	2	1	9	1	2	7	3	3	6	3	
	4	0	4	31	2	1	3	4	2	3	6	3	4	9	0	
	5	0	6	01	6	0	3	8	0	4	6	0	6	0	0	
	6	0	7	01	9	2	3	7	0	5	4	2	7	2	1	
	7	0	8	12	1	0	4	2	1	6	3	1	8	4	2	
	8	0	9	22	4	2	4	9	1	7	1	3	9	6	3	
	9	0	10	32	8	1	5	4	2	8	0	3	10	9	0	
Years of Pounds.		po.	lb.	s.	po.	lb.	s.	po.	lb.	s.	po.	lb.	s.	po.	lb.	s.
	10	0	1	00	3	0	0	6	0	0	9	0	0	12	0	
	20	0	2	00	6	0	0	12	0	0	18	0	0	24	0	
	30	0	3	00	9	0	0	18	0	1	7	0	1	36	0	
	40	0	4	00	12	0	1	4	0	1	16	0	2	48	0	
	50	0	5	00	15	0	1	10	0	2	5	0	3	60	0	
	60	0	6	00	18	0	1	16	0	2	14	0	3	72	0	
	70	0	7	01	1	0	2	2	0	3	3	0	4	84	0	
	80	0	8	01	4	0	2	8	0	3	12	0	4	96	0	
	90	0	9	01	7	0	2	14	0	4	1	0	5	108	0	
	100	0	10	01	10	0	3	0	0	4	10	0	6	120	0	

Find the Principal in the first Column, and in the other you have the Interest due for one, three, six, nine, or twelve months.

Of

Of Weights and Measures.

OF Troy Weight.

24 Grains	}	1 Penny w.
20 Penny w.		1 Ounce
12 Ounces		1 pound Troy

Apothecaries Weight.

28 Grains	}	1 Scruple.
3 Scruples		1 Dram
8 Drains		1 Ounce.
12 Ounces	}	1 Pound.

Of ~~London~~ ^{London} Weights, a Pound whereof is equal to 12 Ounces, 12 penny weight Troy; by which Weight is weighed any thing which beareth the name of Garbel in this kind of weight

16 Drains	}	1 Ounce.
16 Ounces		1 Pound.
28 Pound	}	1 Quarter.
4 Quarters		1 H. or 12
20 Hundreds		1 Tun.

Of Liquid Measure.

2 Pints	}	1 Quart.
2 Quarts		1 Pottle.
2 Pottles		1 Gallon
8 Gallons		1 Firkin of Ale, Sopp.
9 Gallons	}	Herrings.
		1 Firkin of Beer.

10 Gall.	1 Firkin of Salmon
	1 Eel.
2 Firkins	1 Kilderkin
2 Kilderkins	1 Barrel.
42 Gallons	1 Tierce of Wine.
63 Gallons	1 Hoghead
2 Hogheads	1 pipe Butter

Dry Measure.

2 Gallons	}	1 Peck.
4 Pecks		1 Bushell land measure.
5 Pecks		1 Bushell water measure.
8 Bushels		1 Quarter.
4 Quarters	}	1 Chalden.
4 Quarters		1 Wey.

Long Measure.

3 Barly Corns	}	1 Inch.
12 Inches		1 foot.
3 feet	}	1 Yard
3 feet 9 Inch.		1 Ell.
6 feet	}	1 fathom.
5 yards and 1		1 Pole.
40 Poles	}	1 furlong.
8 furlongs		1 Eng. mile

Land Measure.

1 pole in breadth and 40 in length make 1 Rood of Land
4 Roods make an Acre, which contains 160 square pole.

Cloth Measure.

4 Nails	}	1 Quarter.
4 Quarters		1 Yard.
5 Quarters	}	1 Ell.
3 Quarters		1 Ell Flemish

Swallow 1689.

A Table shewing how many Inches in Length makes one Foot of Timber, according to the Compas of any Round Piece of Timber.

The Compas of the Tree in Inches.	Com. In. parts.			Com. In. parts.			Com. In. parts.		
	In.	Parts.	Value	In.	Parts.	Value	In.	Parts.	Value
10	219	14	40	13	572	70	4	432	
11	179	46	41	12	916	71	4	308	
12	150	80	42	12	310	72	4	198	
13	128	49	43	11	744	73	4	75	
14	110	79	44	11	211	74	3	965	
15	94	312	45	10	723	75	3	881	
16	84	822	46	10	262	76	3	760	
17	75	137	47	9	830	77	3	663	
18	67	20	48	9	425	78	3	569	
19	60	151	49	9	44	79	3	479	
20	54	186	50	8	686	80	3	393	
21	49	228	51	8	349	81	3	310	
22	44	865	52	8	30	82	3	230	
23	40	904	53	7	730	83	3	152	
24	37	690	54	7	447	84	3	78	
25	34	743	55	7	178	85	3	6	
26	32	122	56	6	924	86	2	936	
27	29	787	57	6	684	87	2	869	
28	27	697	58	6	455	88	2	804	
29	25	820	59	6	238	89	2	742	
30	24	127	60	6	30	90	2	681	
31	22	596	61	5	836	91	2	622	
32	21	206	62	5	649	92	2	566	
33	19	936	63	5	471	93	2	511	
34	18	784	64	5	301	94	2	458	
35	17	736	65	5	140	95	2	406	
36	16	755	66	4	985	96	2	356	
37	15	862	67	4	837	97	2	307	
38	14	38	68	4	696	98	2	261	
39	14	270	69	4	561	99	2	216	
						100	2	171	

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Swallow 1689.

The use of the Table.

First girt the Piece about, then look the length that Girt under the title Com. and against it is the length of a Foot solid in Inches and parts of Inches.

Example.

Suppose a piece of Timber be 80 Inches about, then look 80 under the title Com. and against it in the next Column toward the right hand is 3 Inches and 393 decimal parts of an Inch, (that is 393 thousand parts, supposing the Inch to be divided into 1000 parts) for the length of a Foot.

For Square Timber.

Divide always 1728. (the Cubick inches in a foot solid) by the Content at the end, and the Quotient shews the length of a foot solid in Inches.

Example.

Let a piece of Timber be 12 Inches broad and 10 Inches deep at the end, and then the Content will be 120 Inches, which dividing 1728 the Quotient is 14 Inches and $\frac{48}{1000}$ parts for the length of a foot solid.

For Boards.

Divide always 144 (the Inches in a foot square) by the breadth, and the Quotient shews the length of a foot square in Inches.

Example.

If a board be 16 Inches broad, then 144 divided by 16 the Quotient is 9 Inches for the length of a foot according to that breadth.

For Circles.

If the Circumference be given, multiply it by it self and then by 7, the last product divide by 88, and the Quotient shews the Content: if the Diameter be only given, multiply it by it self, and then by 11 the last product divide by 14 and the Quotient shews the Content.

A Table of the hour and minute of Sun-rising every second day.

	Januar.		Februa.		March		April		May		June	
	ho.	mi.	ho.	mi.	ho.	mi.	ho.	mi.	ho.	mi.	ho.	mi.
1	8	4	7	15	6	16	5	14	4	21	3	46
4	8	1	7	11	6	12	5	10	4	17	3	45
6	7	58	7	7	6	8	5	6	4	14	3	44
8	7	56	7	3	6	4	5	2	4	11	3	43
10	7	53	6	57	6	0	4	58	4	7	3	43
12	7	51	6	53	5	56	4	54	4	5	3	43
14	7	48	6	50	5	52	4	50	4	2	3	43
16	7	45	6	46	5	48	4	46	4	0	3	44
18	7	43	6	42	5	44	4	43	3	58	3	45
20	7	40	6	38	5	40	4	39	3	56	3	46
22	7	37	6	34	5	36	4	35	3	54	3	47
24	7	33	6	30	5	32	4	32	3	52	3	48
26	7	29	6	26	5	29	4	29	3	50	3	49
28	7	25	6	22	5	25	4	25	3	48	3	50
30	7	21	6	18	5	21	4	21	3	47	3	52
	July		August		Septem.		Octob.		Novr.		Decem	
	ho.	mi.	ho.	mi.	ho.	mi.	ho.	mi.	ho.	mi.	ho.	mi.
1	3	54	4	39	5	39	6	41	7	37	8	15
4	3	56	4	43	5	42	6	45	7	40	8	15
6	3	58	4	46	5	46	6	49	7	44	8	16
8	4	0	4	50	5	50	6	52	7	47	8	17
10	4	3	4	54	5	54	6	56	7	51	8	17
12	4	6	4	58	5	58	7	0	7	54	8	17
14	4	8	5	2	6	2	7	4	7	57	8	17
16	4	11	5	6	6	6	7	8	7	59	8	16
18	4	15	5	10	6	11	7	12	8	1	8	15
20	4	18	5	14	6	15	7	15	8	3	8	15
22	4	21	5	18	6	20	7	19	8	5	8	14
24	4	24	5	21	6	24	7	22	8	7	8	13
26	4	27	5	25	6	28	7	25	8	9	8	10
28	4	30	5	29	6	32	7	29	8	11	8	9
30	4	34	5	32	6	36	7	32	8	13	8	7

See the day on the side; and right against it, in every month, you have the hour and minute of Sun-rising.

Look how many minutes the Sun rises after 3, 4, 5, 6, 7, 8.

So many he sets before 9, 8, 7, 6, 5, 4.

C

A

A Table of Annuities and Reversions.

What 1 pound to
be paid any num-
ber of years hence,
under 31, is worth
in ready money.

What 1st Annuity
to continue anytime
under 31 years is
worth in ready mo-
ney at 6 per cent.

What 1 pound will
amount to at any
time under 31 year
reckoning Interest
upon Interest.

	sh.	d.	q.	lb.	sh.	d.	q.	lb.	sh.	d.	q.
1	18	10	2	0	18	10	2	1	1	3	2
2	17	9	2	1	16	8	0	1	2	5	2
3	16	9	2	2	13	5	2	1	3	9	3
4	15	10	0	3	9	3	2	1	5	3	0
5	14	11	1	4	4	3	0	1	6	9	0
6	14	1	1	4	18	4	1	1	8	4	3
7	13	3	2	5	11	7	3	1	10	0	3
8	12	6	2	6	4	2	1	1	12	10	2
9	11	10	0	6	16	0	1	1	13	9	2
10	11	2	0	7	7	2	1	1	15	9	3
11	10	6	2	7	17	8	3	1	17	11	1
12	9	11	1	8	7	8	0	2	0	3	0
13	9	4	3	8	17	0	2	2	2	7	3
14	8	10	0	9	5	10	3	2	5	2	2
15	8	4	0	9	14	3	0	2	7	11	1
16	7	10	2	10	2	1	2	2	10	9	2
17	7	5	0	10	9	6	2	2	13	10	1
18	7	0	0	11	16	0	2	3	17	1	0
19	6	7	1	11	3	2	0	3	0	6	0
20	6	3	3	11	9	4	3	3	4	1	3
21	5	10	2	11	15	3	1	3	7	11	3
22	5	6	2	12	0	10	0	By this Table you may readily find the increase of any other sum for such a num- ber of years: for if 1 come to so much then such suppose 5 th will come to 5 times as much &c.			
23	5	2	3	12	6	0	3				
24	4	11	1	12	11	0	0				
25	4	7	2	12	15	8	0				
26	4	4	3	13	0	0	3				
27	4	1	3	13	4	2	2				
28	3	11	0	13	8	1	3				
29	3	9	1	13	11	9	2				
30	3	5	3	13	15	3	2				

The

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The use of the Tables.

THe first Table shewing the decrease of one Pound yearly at 6 per cent. may be used in buying Reversions, &c. As suppose a parcel of Land or house or the like, whose fee simple or real worth is 200^{lb}, and it be Mortgaged or Leased out for 20 years, then what is the Reversion thereof after that 20 years worth in ready money? for answer, I look against 20 years and find that the Reversion of one pound after 20 years is worth but 6^{sh} 2^d 3^q, then if 1^{lb} be worth 6^{sh} 2^d 3^q, 200^{lb} will be worth 200 times as much, which will be 62^{lb} 5^{sh} 10^d for the value of the Reversion required.

The second Table may be used in buying of Leases, &c. as suppose I am to buy a Lease of 10^{lb} per annum, for 21 years, what ready money may I give at the rate of 6^{lb} per cent. per ann. for answer, I look against 21 years and find that 1^{lb} annuity to continue 21 years is worth in ready money 11^{lb} 15^{sh} 3^d 1^q, then I say if 1^{lb} annuity for 21 years be worth 11^{lb} 15^{sh} 3^d 1^q, then 10^{lb} annuity for the same time will be worth 10 times as much, which will be 117^{lb} 12^{sh} 8^d 2^q, for the value of the Lease required.

The third Table may be used in putting out money for a certain time at 6^{lb} per cent. per ann. as suppose 20^{lb} be let out for 7 years, what will it amount to in that time, reckoning Interest upon Interest? For Answer, I look against 7 years, and find that 1^{lb} will amount to in that time 1^{lb} 10^{sh} 0^d 3^q, then I say 20^{lb} will amount to 20 times as much, which will be 30^{lb} 1^{sh} 3^d.

The use of the following Table is plain and easie; for suppose I am to find *Easter* this present year 1689. then having found the Golden Number 18, and Dominical Letter F at the bottom of the Table, I look under the Dominical Letter F at the top, and right against the Golden Number 18 at the left hand, and in the Common angle of meeting I find *March 31*, for *Easter Day*.

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A Table shewing how to find Easter for ever
by the help of the Golden Number
and Dominical Letter.

G.N.	A	B	C	D	E	F	G
i	Apr. 9	10	11	12	6	7	8
ii	Mar. 26	27	28	29	30	31	Apr. 1
iii	Apr. 16	17	18	19	20	14	15
iv	Apr. 9	3	4	5	6	7	8
v	Mar. 26	27	28	29	23	24	25
vi	Apr. 16	17	11	12	13	14	15
vii	Apr. 2	3	4	5	6	Mar. 31	Apr. 1
viii	Apr. 23	24	25	19	20	21	22
ix	Apr. 9	10	11	12	13	14	8
x	Apr. 2	3	Mar. 28	29	30	31	Apr. 1
xi	Apr. 16	17	18	19	20	21	22
xii	Apr. 9	10	11	5	6	7	8
xiii	Mar. 26	27	28	29	30	31	25
xiv	Apr. 16	17	18	19	13	14	15
xv	Apr. 2	3	4	5	6	7	8
xvi	Mar. 26	27	18	21	23	24	25
xvii	Apr. 16	10	11	12	13	14	15
xviii	Apr. 2	3	4	5	Mar. 30	31	Apr. 1
xix	Apr. 23	24	18	19	20	21	22

Yea. of our Lord	1684	1685	1686	1687	1688	1689	1690
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G.N.	13	14	15	16	17	18	19
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D.Lc.	FE	D	C	B	AG	F	E
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The

The Names of the principal Fairs in *England*,
as they have heretofore been set forth by others,
and are now Corrected and continued for the
common good.

January.

The 5 day at Hicetford in Lancashire, the 6 day at Salis-
bury, Tuesday after at Melton-Mowbray, the Thurs-
day after at Banbury: the third Tuesday in January at
Potton: the 25 at Gravesend, Bristol, Churchinford, Nor-
thallerton in Yorkshire every Wednesday from Christ-
mas till June.

February.

The 1 day at Bromley in Lancashire, the 2 at Reading
in Barkshire, at Maidston, Bicklefworth, Bicklesfield, Bath,
Lyn, Bugworth: the 6 day at Stafford for 6 days: the
14 at Oundle, Feversham: 24 at Henley upon Thames,
Baldock: On Ashwednesday at Royston, Dunstable,
Baton, Tamworth, Tunbridg, Lichfield, Exeter, Ciceter.
The first Thursday in Lent at Banbury: the 26 at Stanford
in Horse Fair.

March.

The 3 day at Bromel-brakes in Norfolk, 4 at Bedford, at
Oakham: 12 at Alsome in Norfolk, Sudbury, Wooburn,
Stanford, at Wye: 13 at Bodwin in Cornwall: 20 at
Durham, Alesbury: Munday before our Lady day at Ken-
dal, at Wisbich. 25 at Huntington, Northampton, Malden,
Ashwel in Hartfordshire, Newcastle, Oney, S. Albans:
Midlent Saturday at Saffron-walden: Palm Sunday-eve
at Wisbich, Worcester, Pomfret, on Goodfriday at Nor-
wich, the Tuesday before Easter at Potton.

April.

Easter Munday at Oney in Bedfordshire, Gainsborough.
Easter Tuesday at Dainty in Northamptonsh. Godman-
chester, Schole in Norfolk, S. Edmunds-bury. On Wed-
nesday at Wellingborough in Northamptonsh. On Friday

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In the same week at Darby. On Saturday at Bicklefworth
 2 day at Hitchin, at Rochford, Northfleet: 5 at Walling-
 ford: 7 at Derby, 9 at Billingsworth, Bicklefworth: the
 22 at Stabford, 23 at Ipswich, Harbin in Norfolk, North-
 ampton, Sapfar in Hartfordshire, Charing, Hinningham,
 Tamworth, Bury in Lancashire. S' Pombs in Cornwall,
 Amptill, Chichester, Engfield, Gilford, Bishop-
 Hatfield: the 25 at Buckingham, at Bourn in Lincoln,
 Colebrook, Dunmow in Essex, Darby, Oakham in Rut-
 landshire: the 29 at Tenderden in Kent, Cleet, 30 at Beverly
 a week together.

May.

The 1 day at Swaffam, Haveril in Essex, Laytonbuzzard
 in Huntingdonsh. Rippon in Yorks. Reading, Maidstone,
 Chelmsford, Leicester, Litchfield, Lexfield in Suffolk,
 Stow, Stansted, Tunford in the Clay, the 3 day at Elstow
 in Bedfordsh, Noneaton in Warwick. Thetford in Nor-
 folk, Walcham Abby, Hinningham, Rochdale, Bramyard,
 the 6 at Almesbury, at Ashford, 7 at Newton in Lanc-
 shire, Beverly, Oxford. Bath: the 8 at Maidstone: the 11
 at Rochester, Dunstable, Magfield in Suffolk. On Rog-
 ation Munday at Reach. On Ascension day at Thaxted, Be-
 verly, Rippon, Sudminster, Bishopstratford, S. Neots,
 Wickham in Lancashire, Middle-wich in Cheshire,
 Chappel-Frith in Darbish. On Whitsun-even at Skipton
 in Craven. On Whitsun-Munday at S. Ives, Rygate in
 Surry, Bicklefworth, Bradford, Agmonsham in Bucking-
 hamsh. On Whitsun-Tuesday at Newmarket. On Wed-
 nesday at Royston. Thursday at Oundle in Northampton,
 26 at Lenham, 29 at Crainbrook.

June.

Trinity-even at Rowel, Kendal. On Corpus Christiday
 at Banbury, Bishopstratford, S. Neots, Coventry, Newbur-
 ry. The 3 at Alesbury: 9 at Maidstone. 11 at Breme in
 Norfolk, Bardfield in Essex. 17 at Hadstock, 23 at S. Al-
 bans, Deerham in Norfolk, Shrewsbury, 24 at Halson in
 Suffolk, Barnwel by Cambridge, Bedford, Colchester,
 Hartford,

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Hartford, Leicester, Rumford, Reading, Windsor, Hallifax, York, Beverly, Haslingden, 26 at Bristol, Darby. 27 at Burton on Trent, Folfstone. 28 at S. Pombs in Cornw. 29 at Peterborough, Ashwel, Sudbury, Scbbing in Essex. Benington in Hartfordshire.

July.

The first Tuesday at Potton. The 1, 2, 3 days at Congeston in Cheshire, 7 at Roydon, Burntwood. The Munday after at Fodringham, at Canterbury: the 11 at Partney, 12 at Stevenage: 20 at Uxbridge, Coolidge, Woodstock: the 22 at Ickleton, Bicklefworth, Norwich, Colchester, Newark upon Trent; 25 at Audley-end by Walden, Reading. Baldock, Darby, Dover, Erith, Ipswich, Stamford.

August.

The first day at Bedford, S. Neots, Dunstable, Ferverham, Wisbich, Bicklefworth, Thaxted: the 6 at Peterborough: the 10 at Blackmore, Harply in Norfolk, S. Ives, Bedford, Banbury, Farnham, Brainford, Oundle: the 13 at Cambridge, Huntingdon, Dunmow, Luton, Northampton: the 24 at London, Sudbury, Norwich, Oxford, Northallerton, Dover, Beggars-bush, Burton. the 28 at Ashford, Daintry: the 29 at Halson in Suffolk, Harlow-Bush in Essex, Watford.

September.

The first day at S. Giles in the Bush. On Thursday and Friday before the 8 day at Sandback in Cheshire. 7, 8, 9, 10 at Woodbury-hill in Dorsetshire, 7 at Ware. 8 at Huntington, Bury in Lancashire, Partney, Wakefield, Northampton, sturbridge fair begins: the 11 at Wolspit in Suff. 14 at Rippon, Waltham-Abby, Chesterfield in Darbshire, Richmond: the 21 at Marlborough, Bedford, Baldock, S. Edmundsbury, Holden in Holderness, Braintry, Brackly-Maiden, Malden, Mildnal: the 29 at S. Ives, Basingstoke, Marketdeeping, Shelford in Bedfordsh. Bishopstortford, Malden, Stow in Lincolnsh. S. Albans, Canterbury, Leicester, Newbury, Westchester, Weymer for 7 days: Thursday after at Banbury.

October.

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October.

The 1 day at Salisbury, the 6 at Havent in Hampsh. Ma
 stone, Coolidge, Gayworth by Lyn. S. Faiths by No
 wich, the 8 at Bishopstratford, Harborough, 9 Gainsb
 rough, the 13 at Windsor, Colchester, Gravesend, Hitchi
 Royston: the Tuesday before S. Luke at Potton: 18
 Ely, Bishop Hatfield, Barnet, Banbury, Thirst, Burton o
 Trent, Wellinborough: the 21 at Saffron Walden, Cover
 try: the 23 at Bickleiworth, 28 at Newmarket, Hartford
 Oxford, Dis. Wakefield, Stamford, Richdale in Lanc
 shire.

November.

The 1 day at Chelmsford, 2 at Epping, Kingston o
 Thames, Padamhaston in Suffolk, 6 at Newportpond, Be
 ford, Hartford, 11 at Lodden in Norfolk, Lenton in Notting
 hamshire, Hempton, Fockingham Bridgestock, Marlbo
 rough: the 17 at Spalding in Lincolnsh. Lincoln, Harlow
 Hide, Northampton: the 19 at Horsham in Kent: the 20
 S. Edmundsbury, Ingerston in Essex, Heath, the 23 at Sand
 wich, the 30 at Baldock. Bareford, Kolingborough, Ma
 denhead, Warrington, Rochester, Wakefield, York.

December.

The first day at Turbury: the 5 at Pluckley: the 9
 s. Neots, at Woodstock, Exeter, Spalding, Norwich
 Cheshire, Seven-oak in Kent, Arundel, Grantham: the
 at Sandhurst, the 8 at Northampton, Clitheral in Lanc
 shire, Huntington, Leicester, at Malpas in Cheshire: the
 at Canterbury, Salisbury.

THere is lately published *Thesaurus Linguae Sanctae Referatus*, &c.
 being a Concordantial Hebrew Lexicon, or Dictionary; in
 which all the Hebrew Lexicons are succinctly comprehended, and
 the whole Hebrew Concordance of every Word of the Hebrew Bible
 grammatically resolved, &c.

A Full, Large, and General Phrase-Book; Comprehending, what
 soever is Necessary, and most Usefull, in all other Phraseologi
 cal-Books, (hitherto, here, published;) and Methodically Digested
 for the more speedy and Prosperous Progress of Students in their
 Humanity Studies. Both Published by William Robertson, A. M.
 and sold at the Crane in St. Pauls Church-yard, LONDON.

F I N I S.

